COMPUTER SCIENCE
in
ARKANSAS

BACK TO SCHOOL

CSFORAR SUMMER 2021 PROFESSIONAL DEVELOPMENT

The CSforAR Team presented a total of 18 unique professional development trainings to Arkansas educators this summer! The CS Specialists digitally presented the majority of the professional development trainings, but a few of the trainings were offered in-person.

From new trainings, such as the Arkansas Computer Science and Computing Educator Academy and the Network of Success, to Coding Block and Advanced Robotics, 523 Arkansas educators received CS training this summer. That is a total of 444 hours over 74 days of professional development. Therefore, Arkansas educators earned more than 11,500 hours of professional training. The CSforAR Team is proud of the work accomplished this summer, and are excited for these Arkansas educators to share their knowledge with students all around the state.

Here is what some participants shared about their summer PD experience with the CSforAR Team:

"Wow! What a bunch of information. I'm getting a lot of good information and exposure to cybersecurity concepts for the first time." - **Trevor McGarrah, Searcy High School**

"Advanced Java was a very informative course that provided a lot of useful ideas and concepts for classes while boosting language skills." - **Travis Limbaugh, Arkansas Virtual Academy**

"As a business teacher, being 'volunteered' to teach Computer Science was a daunting task. The two-week Academy gave me a little hope that I will be able to tread water during the school year. There was so much information it was a little overwhelming at times, but it is nice to know that the information given is tucked away in my google drive, and the folks who taught the Academy are willing to help at any time." - **Blake Medlock, Highland School District**

ARKANSAS COMPUTER SCIENCE NETWORK OF SUCCESS PROGRAM

The Network of Success Program was launched this summer with 14 districts participating! It was held June 2-3, 2021. This program was designed to help teachers and administrators who are interested in growing the computer science program within their district.

Several members from each district participated in the program such as their campus principal, computer science teacher(s), and counselor. The district received a box with assorted technology equipment, books, and computer science swag.

This year-long program focuses on developing personalized program goals and creating a communication plan, fostering industry connections, and a support network to grow their students and their program. For more information please reach out to the csforar@ade.arkansas.gov team.

ARE YOU APPLYING FOR A CS BONUS?

This Commissioner's Memo COM-22-001 is an update of the Arkansas Department of Education (ADE) Office of Computer Science facilitated Computer Science Educator Bonus programs. It outlines changes to the application and disbursement windows that were previously shared on Commissioner's Memo COM-20-097.

Beginning in fiscal year 2022 (FY22), which began July 1, 2021, the ADE Office of Computer Science is adjusting the application and funding distribution windows to align more appropriately with the school year:

- Fall:
  - Applications accepted August 15 - September 30
  - Disbursements to Districts by November 15
  - All bonuses should be paid to appropriate educators by December 31
- Spring:
  - Applications accepted February 1 - March 15
  - Disbursements to Districts by April 15
  - All bonuses should be paid to appropriate educators by May 31
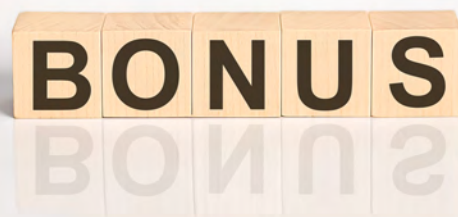
Note that the application windows will **only** be open August 15th through September 30th and February 1st through March 15th of each school year.

These changes in the application windows and distribution timelines allows our office to more effectively communicate with schools and educators during the school year about submitted applications and financial disbursements.

For more information regarding the following bonus programs, please see the links below:

- Arkansas High School Computer Science Teacher Endorsement and Instruction Bonus Program
- Arkansas Computer Science K-8 Lead Teacher Bonus Program
- Advanced Computer Science Professional Development Bonus Program

All bonus application systems may be accessed at: https://csforar.info/Bonuses

GOVERNOR ASA HUTCHINSON ELECTED CHAIRMAN OF NGA

On July 8, 2021, Arkansas Governor Asa Hutchinson began his term as Chairman of the National Governor's Association (NGA).

"Founded in 1908, the National Governors Association is the voice of the leaders of 55 states, territories, and commonwealths. Our nation's Governors are dedicated to leading bipartisan solutions that improve citizens' lives through state government. Through NGA, Governors identify priority issues and deal with matters of public policy and governance at the state, national and global levels." - National Governor's Association

Hutchinson said, "My initiative as chair will be to improve access to computer science education nationwide. Arkansas has become known nationally for our computer science education program, and I want to showcase the efforts in other states and show why this matters and how we can expand computer science education. We will continue to have honest conversations with the White House and seek bipartisan solutions that work for everyone." - KATV

Congratulations to Governor Hutchinson on being elected as Chairman and for continuing to promote computer science education.

2021 CONGRESSIONAL APP CHALLENGE

The Arkansas STEM Coalition announced Arkansas Congressman are inviting eligible middle and high school students to participate in the 2021 Congressional App Challenge. The submission period runs from **June 24 through November 1**.

The Congressional App Challenge is a nationwide event that allows students to compete with each other by creating and exhibiting their software application for mobile, tablet, or computer devices of their choice.

Eligible participants can register and submit a YouTube or VIMEO video demo explaining their application and what they learned through the competition at https://www.congressionalappchallenge.us/.

The winning student's application will be featured on the United States House of Representatives' website, as well as on display in a United States Capitol exhibit.

For more information visit https://www.congressionalappchallenge.us/.

CS SPECIALIST SPOTLIGHT

Meet Mark Barnes, our newest member of the CSforAR Team! Although all of our specialists are statewide, Mark will be primarily serving schools in the Southeast region. He brings his experience in the tech industry and knowledge of AI and data science to the team.

Some of Mark's earliest memories of technology were playing old DOS games on a black and green monitor at his childhood home in Papua New Guinea. He said, "I was always looking for new things I could do with the computer, but was very strongly discouraged from messing with it since my dad used it for work. I think that's part of why I didn't see computer science as a viable career path until later in life."

Mark started his career as an English teacher at Pulaski Technical College of the University of Arkansas.

After dabbling with web design and coding for years, he decided to make the switch to computer science in 2015. He holds a Master of Arts in English from the University of Illinois and a Master of Science in Computer Science from UALR. He shared, "I was privileged to be a part of some really cool projects at UALR's Emerging Analytics Center, including the Cyber Arena, and I'm very proud of the work I did there."

Mark loves learning about and working with artificial intelligence and VR/AR development. He currently holds NVIDIA Computer Vision and Microsoft AZ-900 certifications and has experience coding in Python and C++. One of his favorite tech tools is Google Colab. This program makes artificial intelligence accessible to people regardless of income or computing power. He said, "All you need is an internet connection, and you can have access to some of the most powerful AI tools out there, free of charge. Considering how wide of an impact AI now has on our lives, it's important that these tools are democratized so that everyone can understand and use them."

Mark is drawn to stories of some of the early hackers, programmers, and computer builders in the 60s and 70s. "I read Stephen Levy's book *Hackers* several years back, and learning about how a bunch of hippies, anarchists, and social outcasts changed the world was really inspiring. The hacker ethic and the ideal of sharing information and technology are core values of mine."

Mark began working at Windstream as a data engineer, but felt drawn back to education when he heard about the Computer Science Initiative. "I've never been very profit-motivated, so the opportunity to help teachers in this state was more appealing than working in the corporate world."

When asked about his view on students' involvement in computer science and where it could take them he said, "Everywhere. The field is wide open, and kids here in Arkansas have unique experiences that they can bring to their work. One of the few positive outcomes of the pandemic has been an increase in remote work, so there are lots of opportunities for kids in rural and low income communities to build knowledge and find rewarding work in the field without leaving home. There's a huge possibility here for community-wide transformation as more people follow that example."

If interested in gaming or tinkering, reach out to him! Be aware, though, that Mark prefers games with unique mechanics, stories, and perspectives, like *Return of the Obra Dinn, Antichamber,* and *else heart.break()*. You can reach Mark at mark.barnes@ade.arkansas.gov.

NEW OFFERINGS IN CSFORAR CHILDREN VIDEO SERIES

In June 2021, the Arkansas Department of Education Office of Computer Science announced the launch of our "Computers ARe Fun" video series. This series of videos is intended for younger viewers, typically Pre-K - 5th grade, and will help children understand the basics of computers, including introductory computer literacy, some coding, low level hardware discussions, and appropriate cybersecurity and internet security topics. In addition, we will share information about computer science and computing careers in a fun way.

Videos within the series are posted to our YouTube page in our "Computers ARe Fun" playlist as they are made available at http://csforar.info/ComputersAReFun.

Since the release, 21 episodes have been posted and are available today, so be sure to check them out!

Some of the content shared will be accessible online, but much of it will focus on unplugged activities that children can explore with their family without the use of computing devices.

If you have any questions or comments, please contact the CSforAR Team at CSforAR@ade.arkansas.gov.

LearningBlade® CORNER

Learning Blade is pleased to announce that Amy Polanowski will serve as the Arkansas State Manager. Amy is a 10-year middle school STEM/PLTW/Math teacher who has been using Learning Blade for the past 6 years in her classroom. Amy previously taught Math and STEM at Pea Ridge Middle School in Arkansas. At Pea Ridge she had the opportunity of teaching STEM with Learning Blade. During this time she found her passion for bringing career exploration to her classroom. Amy moved to Sullivan, Missouri, where she used Learning Blade to supplement her PLTW classes.

Amy holds a Master's Degree in Curriculum and Instruction and looks forward to assisting AR teachers in implementing Learning Blade into their classrooms and to support CS/STEM/CTE career awareness.

To schedule a PD for yourself or your school, email Amy@learningblade.com, and to request your schools Learning Blade license, please visit www.learningblade.com/AR.

Learning Blade Corner - a monthly snapshot of happenings with Learning Blade in AR.

Amy Polanowski - State Manager for Arkansas

#ARKIDSCANCODE / #RISEARKANSAS 2021 BOOK SELECTION RECOMMENDATION FORM

The Arkansas Department of Education Office of Computer Science is pleased to announce the continuation of its cross initiative program supporting both the Arkansas Computer Science (#ARKidsCanCode / #CSforAR) and Arkansas Reading Initiatives (#RISEArkansas).

Each year of this program, approximately 900 K-8 public school libraries have received coding devices and coding related books. For 2021, we are asking **YOU** for computer science and computing related books that you would like to see distributed to public school libraries around the state.

Please let us hear about your K-8 coding related book recommendations today, and please share this form within your networks and with your contacts!

The form can be found using the following link: https://forms.gle/xn1EST3UTvibUX6n7

You may fill out this form multiple times to recommend different books, and we ask you to share this with any educators that you think would like to provide a recommendation.
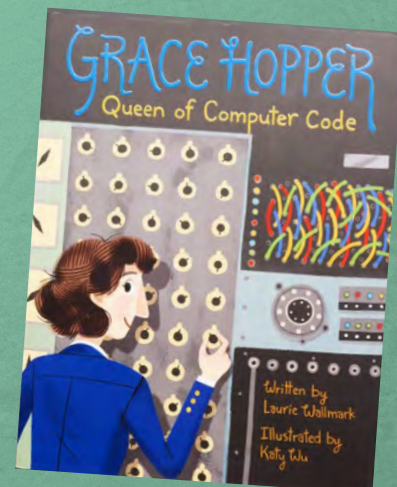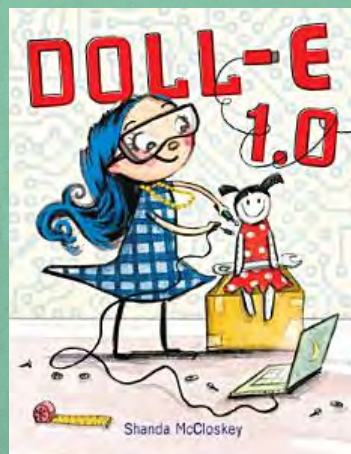
Previously Selected Books Include:
- Grace Hopper: Queen of Computer Code – Laurie Wallmark
- Doll-E 1.0 – Shanda McCloskey
- Emmy in the Key of Code – Aimee Lucido
- Code Your Own Games with Scratch - Max Wainewright
- Sasha Savvy Loves to Code - Sasha Ariel Alston
- If I Were a Wizard - Paul Hamilton
- Secret Coders Volumes 1 & 2 - Gene Leun Yang and Mike Holmes
- Journey Through the United Field - Cassie B. Barlow and Sue Hill Norrod
- Who Says Women Can't be Computer Programmers? The Story of Ada Lovelace - by Tanya Lee Stone and Marjorie Priceman
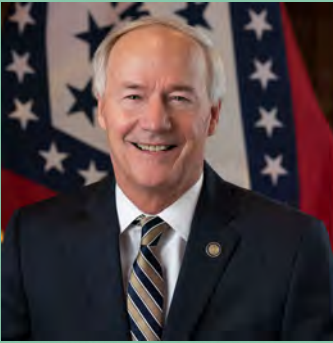- Hello Ruby: Adventures in Coding - Linda Liukas

Scan Me!

Note, this is not a voting form; recommending the same book multiple times will not ensure its inclusion. This form will close on Sunday, August 15, 2021.

COLLEGE BOARD FEATURES ARKANSAS

Governor Asa Hutchinson and State Director of Computer Science Anthony Owen were recently interviewed by Stefanie Sanford, Chief of Global Policy at the College Board. The articles feature how Arkansas is greatly benefiting from Governor Hutchinson's Computer Science and Computing initiative and how Anthony Owen has helped turn Arkansas into a high-tech education state.

Here are a few teasers from each of the articles published by College Board, but links to the full articles are provided below. The CSforAR Team is proud to have such great leadership in the state for computer science education!

The Hope and Opportunity of a Technology Education: Arkansas governor Asa Hutchinson bet big on computer science—and students, teachers, and communities across his state are benefiting

School curriculum doesn't sound like an exciting subject for a political campaign, but Arkansas governor Asa Hutchinson made headlines in 2014 for a campaign ad that featured his young granddaughter Ella Beth. She plays basketball, practices for the swim team—and builds her own mobile app. "She also taught herself basic computer programming," Hutchinson says in the ad, over images of 11-year-old Ella Beth clicking and dragging design tools across a screen. "She's my inspiration for putting computer science, particularly coding, in every Arkansas high school."

Seven years later, that vision has largely become reality through the Arkansas Computer Science Initiative, one of the country's most ambitious efforts to make computer science a standard part of the school experience for all students. "Some people rolled their eyes at that ad, but it worked!" Hutchinson tells The Elective. "People understood why this was important for our students and responded to it. This is really going to be a legacy issue for me." - Stefanie Sanford, College Board
https://elective.collegeboard.org/hope-and-opportunity-technology-education

Seizing the (Computer Science) Initiative in Arkansas: Working closely with Governor Asa Hutchinson, Anthony Owen has helped turn his state into a leader in high-tech education

Not many people have Anthony Owen's job.

As Arkansas' computer science czar, Owen is one of the few state officials in the nation totally focused on expanding computer science education. It's a crucial role in Governor Asa Hutchinson's administration, which has been committed to expanding computer science in the state for seven years. (The governor believes in computer science education so much that he ran campaign ads about coding classes.) And under Hutchinson, Arkansas has become a national leader in high-tech education. Computer science is also now a graduation requirement in the state, and lawmakers have committed millions in funding to expand course offerings and close racial and gender gaps in computer science enrollment.

"It's a lot broader than just coding or programming," Owen told The Elective recently. "We now have data science, mobile applications, artificial intelligence, and machine learning. We have lots of pathways that give students a way to make computer science interesting." - Stefanie Sanford, College Board
https://elective.collegeboard.org/seizing-computer-science-initiative-arkansas

ARKANSAS COMPUTER SCIENCE TEACHING POSITION CONNECTION

As the new school year starts, remember that the ADE Office of Computer Science has recently created the Arkansas Computer Science Teaching Position Connection form to assist schools with sharing their information.

The form, which is basic information and can be completed in under two minutes, is found at http://csforar.info/CSConnectForm.

The listings spreadsheet, which we will share via our listservs, Facebook group, monthly newsletter, social media, and any other channel where we think it will reach teachers, is found at http://csforar.info/CSConnectList.

Again, if your school has a CS Teacher position open, fill out the form found at http://csforar.info/CSConnectForm and we will do our part in helping you find a CS educator.

If you are a teacher looking for a CS position, keep your eye on the spreadsheet found at http://csforar.info/CSConnectList.

CS FOR AR

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UPCOMING TRAINING

bit.ly/CSforARPD

#CSFORAR COFFEE CAFE

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